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ABSTRACT

One of a series of studies originating in Austin, Texas examining the relative contribution of the primary socializing agents on the child's sex-role development, their study was designed to determine whether mother and peers of nursery school children differentially reward or punish play with sex-appropriate or sex-inappropriate toys. The study controlled for the number and kinds of sex-typed toys present during mother-child and peer-child interaction. The subjects were 48 3-and 5-year-old boys and girls, their mothers, and their same-sex, same-age peers. Each child was observed by concealed video camera with mother, with peer, and alone. In each situation a new toy set was introduced; one "masculine", one "feminine". Broad results indicate that both mothers and peers contingently ridicule and verbally interfere when children play with inappropriate sex-typed toys. Girls are likely to receive more differential reward for playing with feminine toys than boys for playing with masculine, and boys more punishment than girls for reverse situations. Results suggest that peer influence is greater than mother's with the older child. (PFS)

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Mother and Peer Influences on Children's Sex-Role Play Behaviors

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Mother and Peer Influences on Children's Sex-Role Play Behaviors

Since Maccoby and Jacklin's review of sex differences was published in 1974, research interest on sex-role socialization has dramatically increased. This increased interest seems to be a response, at least in part, to a conclusion made by Maccoby and Jacklin (1974) that there is little evidence to suggest that parents differentially reinforce and punish the sex-typed behaviors of their children. Indeed, both Block (1976) and Birns (1976) argue that such conclusions regarding differential sex-role socialization by parents are unwarranted pending further study.

Since 1974, much more evidence regarding differential treatment has been collected. This evidence reveals the presence of differential reactions to children's sex-typed behaviors by social agents such as nursery school teachers and peers (e.g., Etaugh, Collins, & Gerson, 1975; Fagot, Note 1; in press; Fagot & Patterson, 1969; McCandless, Bush & Carden, 1976). Differential parental sex-role socialization, however, has not received extensive investigation, but there are indications that differential treatment extends to parents as well (e.g., Fagot, 1974; Note 2; Lamb & Lamb, 1976). For example, Fagot (1974, Note 2) has found that both fathers and mothers of 2-year-old children tend to react positively to sex-appropriate play and negatively to sex-inappropriate play. This was especially true for parents of 2-year-old boys.

The present investigation is one of a series of studies which we have designed to examine the relative contributions of the primary socializing agents on the child's sex-role development. The study reported here was designed to determine whether mothers and peers of nursery school children differentially reward play with sex-appropriate toys and differentially punish or extinguish play with sex-inappropriate toys.

Further, our study employed an experimental paradigm which controlled for the number and types of sex-typed toys present during mother-child and peer-child interaction. Past research on differential reactions to sex-typed play have encountered difficulties in determining reactions to play with sex-inappropriate toys (e.g., Fagot, in press; Note 1; Fagot & Patterson, 1969). These difficulties seem to be due to the low frequencies of children's play with sex-inappropriate toys in naturalistic settings. Thus, we used an experimental paradigm which allowed us to determine mothers' and peers' reactions to children playing with both sex-appropriate and sex-inappropriate toys.

Method

The subjects in our study were 48 3- and 5-year-old boys and girls, their mothers, and their same-sex, same-age peers. The children were selected from several middle-class nursery schools in Austin, Texas.

Each child was observed via a concealed video camera for a total of 25 minutes. Ten minutes of that time was spent with the mother, 10 with the peer, and 5 minutes alone. In each of these conditions (with mother, peer or alone) a new toy set was introduced. The toy sets and their descriptions are listed in Table 1. During the first half of each condition one toy from

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Insert Table 1 about here

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a set was present and during the second half of each condition the paired toy from the set was present. Thus, Johnny Doe would have his mother or peer with him for 10 minutes, half of that time with a masculine toy and the other half with the paired feminine toy.

The experimenter escorted each child to an unused room in the nursery school and gave the child this instruction:

"Make sure to play with this toy the way you're supposed to." This instruction was given in order to elicit play with each toy. The experimenter then presented the toy to the child, repeated the instruction, and left to get the mother or peer. On the way to the room, mothers and peers were told that they could play with the child if they wished, but that they could do whatever they wanted to do.

Seventeen behavior categories representing children's toy play, and mother/peer reinforcement, pxnishment, and extinction were coded from the videotapes by undergraduates who were naive as to the purpose of the study. Coders recorded the presence or absence of each behavior every five seconds using a behavior check list. The behavior categories and the inter-coder reliabilities are shown in Table 2.

Insert Table 2 about here

In order to assess the reactions of mothers and peers to children's play with sex-appropriate and sex-inappropriate toys, we analyzed the contingencies of mother/peer responding to toy play. Specifically, analyses of variance using a Greco-Latin square design were performed on the proportion of time mothers and peers exhibited responses when children were playing with masculine or feminine toys. Our unit of analysis, then, was the proportion of time mother/peer responses co-occurred with the child's toy play within a 5-second interval, relative to the total amount of time spent in toy play during each 5-minute observation period.

Results

The results will be presented in terms of (1) differences in responding between mothers and peers which were not differential in nature and (2) patterns of differential reactions by mothers and peers to play with sex-appropriate and sex-inappropriate toys.

(1) The first pattern of results indicates differences between mothers' and peers' responses; that is, differences in styles and types of responses exhibited by mothers and peers, regardless of whether the child was playing with a masculine or feminine toy. As we see in Table 3, mothers tend to be more rewarding and positive than peers when children play, while peers tend to be more punishing than mothers. An important qualification should be

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Insert Table 3 about here

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noted, however. Specifically, mothers of 5-year-olds reinforced their children less overall than mothers of 3-year-olds while peers of 5-year-olds reinforced children more than peers of 3-year-olds. This suggests that peers may take on increasing importance as socializing agents with age while mothers' influence may decrease.

(2) Patterns of differential reactions by mothers and peers to children's play with sex-appropriate and sex-inappropriate toys were found as well. When boys played with feminine toys and girls played with masculine toys, they were more likely to be ridiculed by both peers and mothers than when they played with sex-appropriate toys. Moreover, there was a clear developmental pattern of increasing contingent verbal interference over age for play with sex-inappropriate toys.

Numerous interaction effects revealed various patterns of mother/peer differential treatment for girls and boys. Table 4 indicates the mean proportion of contingent reinforcement, punishment and extinction for girls'

Insert Table 4 about here

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appropriate play. For girls, differential reward for play with feminine toys increased with age and was provided by both mothers and peers. Further, contingent ignoring was observed more when girls played with masculine than feminine toys and this ignoring was evidenced more by peers than by mothers.

Table 5 shows the mean proportion of contingent reinforcement, punishment, and extinction for boys' appropriate play. In contrast to the pattern for

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Insert Table 5 about here

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girls, the findings for boys revealed very little differential reinforcement for play with masculine toys by either mothers or peers. In fact, not only did reward for play with feminine toys increase with age, but mothers were either more likely to provide reward for play with feminine toys or they provided no more reward for play with masculine than feminine toys. The pattern of differential punishment for boys was very different, however. Boys were more likely than girls to encounter nonresponding from mothers and peers when playing with feminine toys. Moreover, peers were significantly more likely to hit boys when they played with feminine than masculine toys.

An overview of the findings for differential treatment for sex-typed behaviors suggests that both mothers and peers contingently ridicule and verbally interfere when children play with inappropriate sex-typed toys.

Moreover, sex-role learning may be very different for girls and boys. Girls are likely to receive more differential reward for play with feminine than masculine toys and tend to encounter some verbal interference when playing with masculine toys. In contrast, boys received little or no differential reward from mothers or peers for play with masculine toys. Instead, boys received differential punishment, primarily from peers. Our results suggest that when boys play with masculine toys, peers are less inclined to interrupt play and are likely to engage in solitary play which, by definition, includes withdraw and ignoring behaviors. When boys play with feminine toys, however, peers may be more likely to stop what they are doing (nonrespond) and to interfere and disrupt ongoing activity by hitting or other otherwise behaviorally interfering.

Discussion

Let's now look at the total picture provided by the results from this study. Our results indicate differences in both style and amount of reinforcement, punishment, and extinction delivered by mothers and peers, and further, that differential treatment of sex-role play behaviors is very different for boys and girls. Mothers tend to be rewarding and positive in their treatment of play, and this is consistent with other research indicating that children perceive mothers to be nurturant, warm, and affectionate (e.g., Droppleman & Schaefer, 1963; Mussen & Rutherford, 1963). Moreover, mothers' differential reinforcement of their daughters play with feminine toys is consistent with research on female nursery school teachers (e.g., Etaugh et al., 1975; Fagot & Patterson, 1969; McCandless et al., 1976). Taken together, this body of research suggests that female caretakers in general tend to reinforce behaviors already present in their own behavioral repetoire (namely feminine behaviors) and behaviors for which they may once have been reinforced by others.

The lack of differential reward for boys' play with masculine toys conflicts with earlier findings which had suggested high amounts of male peer reinforcement for masculine activities in naturalistic settings (e.g., Fagot & Patterson, 1969; McCandless et al., 1976). This inconsistency in findings may be due to differences in the definitions of reward and punishment since we used a number of very discrete behavioral categories while a number of other studies have used more broad classifications. The differences might also be due to the experimental paradigm employed in this study. The present findings suggest that peers' differential use of punishment for boys' play with feminine toys may be an even more important factor in sex-role learning than differential reward for play with masculine toys. Indeed, Mischel (1970) has suggested that socializing agents are more likely to use behaviors that are strong in their own behavioral repetoire to socialize others. Therefore, it could be argued that since males tend to be more physically aggressive and antisocial than girls (e.g., Langlois, Gottfried & Seay, 1973; Serbin, O'Leary, Kent & Tonick, 1973), they tend to use those behaviors in their treatment of sex-role play behaviors.

It is also likely that boys receive differential treatment from socializing agents other than peers or mothers, such as fathers and siblings. Therefore, the lack of differential reward from mothers and peers does not mean that reward is not involved in boys' sex-role acquisition.

In sum, our results strongly suggest the presence of differential reactions in mothers and peers when children play with sex-typed toys. Moreover, the differing patterns for girls and boys indicate that sex-role learning as well as the agents of sex-role socialization may be very different as a function of the child's gender. Future investigations should be directed at other agents in the child's social network such as fathers and siblings. Moreover, the

specification and analysis of individual types of reinforcement, punishment, and extinction may add appreciably to our knowledge about the contingencies of differential treatment that operate on children's sex-role acquisition.

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Table 1

The Toy Sets[1,2]

Set 1- Paired on the basis of a similar number of movable pieces

Masculine toy- An army set with numerous soldiers, tanks and war vehicles

Feminine toy - A doll house with numerous furniture pieces and four people representing a family

Set 2- Paired on the basis that both toys elicit dramatic and "pretend" play

Masculine toy- A highway toll booth set with three cars, a motorcycle, and a driver

Feminine toy - A Holly Hobby stove with pots, pans and eating utensils

Set 3- Paired on the basis that both involve putting on garments

Masculine toy- Two cowboy outfits including hats, guns, holsters, and bandanas

Feminine toy - Two women's dress-up outfits, including dresses, hats, high heels, a vanity mirror, a purse and accessories

[1]Note: these toys were rated highly masculine or highly feminine from a large list of toys by college students in a child psychology course.

[2]Note: The order of conditions (mother, peer, alone), the toy sets (1,2,3), as well as the toys within sets were counterbalanced for order.

Table 2

Behavior Categories and Reliability Coefficients

Category	Reliability Coefficient	Definition
Reinforcement		
Attend	.943	Visual inspection or looking
Praise	.943	Verbal statements such as "good, that's right, you're smart", etc.
Help	.748	Physical assistance in the context of toy play
Smile	.905	
Talk	.810	Any positive verbal interaction in the context of playing with a toy, but not including a verbal punishment or other verbal reinforcement
Affection	.949	Phrases of endearment or hugging, kissing, playfully manipulating and patting the head
Imitation	.916	Replication of the child's verbal or physical activity, in the context of toy play, within 15 seconds
Share	.893	A division of resources in which an object is voluntarily given to the child
Accept object	.849	A toy is received by the peer/mother
Punishment		
Verbal interference	.861	Verbal disruption or interference with the child's toy play
Beh. Interference	.952	Physical disruption or interference with the child's behavior such as taking a toy away from the child or putting a toy out of reach
Ridicule	.976	Frowning, or shaking the head in a negative manner from side to side
Intrusive	.867	Attacks, hurtful or harmful aggression such as hits, hits with objects, kicks
Withdraw	.888	Active avoidance on the part of the mother/peer such as a refusal to cooperate (verbal or behavioral), a refusal to play or refusal to tak a toy which is offered by the child
Extinction		
Ignore	.873	There is no response either verbally or physically to the child's play as well as no eye contact
Nonrespond	.983	There is absolutely no responding on the part of the mother/peer although there may be eye contact
Toy Appropriate Play	.958	The child plays with the toy in a manner appropriate for that toy (regardless of whether the toy is masculine- or feminine-typed).

Table 3

Differences in Responding Between Mothers and Peers Which Were Not Differential to the Sex-Appropriateness of Toys[1,2]

Reinforcement	Differences
Attend	Mothers > Peers
Praise	Mothers > Peers
Help	Mothers > Peers
Smile	No differences
Affection	Mothers > Peers
Imitation	Peers > Mothers
Share	No differences
Accept Object	Mothers > Peers
Punishment	
Verbal Interference	Peers > Mothers
Behavioral Interference	Peers > Mothers
Ridicule	No differences
Intrusive	Peers > Mothers
Withdraw	Peers > Mothers
Extinction	
Ignore	Peers > Mothers
Nonrespond	Mothers > Peers

[1]Note: all differences are $p < .05$ or greater

[2]Note: These findings represent the extent to which mothers and peers differed in the frequency of contingent responding to any given toy play exhibited by children

Table 4

Mean Proportion of Contingent Reinforcement, Punishment, and Extinction for Girls' Appropriate Play[1]

	3-Year-Old Girls				5-Year-Old Girls			
	Masculine Toy		Feminine Toy		Masculine Toy		Feminine Toy	
	Mother	Peer	Mother	Peer	Mother	Peer	Mother	Peer
Reinforcement								
Attend	88.25	69.58	91.67	67.67	86.67	45.00	92.50	70.25
Praise	8.50	.58	15.92	1.42	5.67	1.17	9.83	2.50
Help	7.33	.17	8.75	.50	6.75	1.25	8.83	1.67
Smile	4.83	1.83	6.83	3.08	8.50	11.92	9.17	10.58
Talk	28.92	12.67	22.83	22.00	20.00	23.92	19.58	22.58
Affection	.58	.00	2.00	.00	.00	.25	3.92	.33
Imitation	5.83	23.00	5.50	6.00	7.00	1.50	3.25	5.83
Share	4.58	3.58	2.67	1.75	1.83	.58	.42	1.58
Accept Object	1.92	2.58	3.17	2.17	2.00	.83	1.17	.33
Punishment								
Verbal Interfer.	2.00	2.08	1.75	4.83	1.75	6.00	.92	4.58
Behav. Interfer.	2.33	2.25	.17	3.25	1.58	2.08	.25	.92
Ridicule	2.33	5.58	.50	3.50	3.58	2.83	1.58	.75
Intrusive	.00	.33	.00	.67	.25	.25	.00	.33
Withdraw	1.92	3.92	.17	3.83	.00	1.58	.00	1.50
Extinction								
Ignore	6.33	27.17	4.33	24.25	10.83	31.33	2.58	13.58
Nonrespond	21.25	6.08	25.83	10.17	15.92	.25	26.17	5.83

[1]Note: Means represent proportion of co-occurring mother/peer responses and child's toy play every 5 seconds divided by the total number of 5-second intervals in which toy play occurred during each 5 minute observation period.

Table 5

Mean Proportion of Contingent Reinforcement, Punishment, and Extinction for Boys' Appropriate Play[1]

	3-Year-Old Boys				5-Year-Old Boys			
	Masculine Toy		Feminine Toy		Masculine Toy		Feminine Toy	
	Mother	Peer	Mother	Peer	Mother	Peer	Mother	Peer
Reinforcement								
Attend	93.08	67.58	93.67	75.92	73.75	55.33	81.83	70.33
Praise	9.50	.83	14.25	1.75	5.08	1.33	6.83	1.75
Help	10.58	.25	8.75	1.75	5.50	.75	8.00	2.58
Smile	8.33	1.75	8.67	4.42	9.50	16.92	11.17	20.58
Talk	26.50	23.92	26.75	27.00	31.58	14.17	32.00	25.67
Affection	.00	.00	3.58	.00	.00	.00	.17	.00
Imitation	7.42	12.67	5.75	7.50	3.00	6.83	3.25	5.92
Share	1.75	4.00	3.75	3.58	.50	1.08	2.33	1.00
Accept Object	1.33	1.92	4.17	.50	3.83	2.67	6.00	1.00
Punishment								
Verbal Interfer.	4.42	5.42	.75	5.00	2.83	4.83	5.33	5.33
Behav. Interfer.	2.67	5.17	.42	4.50	2.58	3.17	4.75	5.92
Ridicule	1.25	1.25	.17	9.50	2.25	1.67	5.42	3.08
Intrusive	.25	.00	.00	.75	.00	.00	.00	2.08
Withdraw	1.17	10.50	4.92	4.83	4.17	8.83	2.75	2.67
Extinction								
Ignore	8.92	30.33	8,50	21.17	10.42	43.92	13.00	24.17
Nonrespond	30.58	7.25	33.00	17.58	15.58	2.08	15.75	1.08

[1]Note: Means represent proportion of co-occurring mother/peer responses and child's toy play every 5 seconds divided by the total number of 5-second intervals in which toy play occurred during each 5 minute observation period.